

Application No. 09/625,710 (Keller)

Proposed Claim Amendments
(for the purpose of discussion on August 14, 2003)

1-7. (Canceled)

8. (Currently Amended) A system for the partial oxidation of light hydrocarbons and the partial oxidation of H_2S , comprising: ~~a hydrocarbon injection line, an H_2S injection line in communication with said hydrocarbon injection line, an oxygen injection line in communication with said hydrocarbon injection line,~~

a reaction zone for receiving gases from said hydrocarbon, and H_2S and oxygen injection lines and including a catalyst suitable for catalyzing the partial oxidation of said hydrocarbon and the partial oxidation of H_2S to form a product comprising CO , H_2 , elemental sulfur and H_2O , and, ~~downstream from said reaction zone, at least one~~ a cooling zone including a sulfur condenser for receiving said product from said reaction zone and removing at least a portion of said elemental sulfur from said product.

9. (Previously Amended) The system according to claim 8 comprising a mixing zone upstream of said reaction zone, said mixing zone adapted for receiving said hydrocarbon, H_2S , and oxygen gases.

10. (Original) The system according to claim 9 comprising a thermal barrier between said mixing zone and said reaction zone.

11. (Currently Amended) The system according to claim 9 ~~wherein said oxygen injection line communicates comprising an oxygen injection line in communication~~ with said reaction zone.

12. (Currently Amended) The system according to claim 9 ~~wherein comprising an oxygen injection line in communication with said mixing zone receives oxygen from said oxygen injection line.~~

13-14. (Canceled)